

**National Marine Fisheries Service (NMFS) Determination March 15, 2011:**

**Old and Middle River Flow Management [Action IV.2.3 (pages 648-652) of the NMFS Biological Opinion for the Long-Term Operations for the Central Valley Project and State Water Project (Opinion)]**

**Summary of Advice from the Delta Operations for Salmonids and Sturgeon (DOSS) group:**

**Background:** DOSS confirmed the combined older juvenile Chinook salmon loss density at the fish facilities from 3/07 to 3/13/11, as provided in the following table.

**SWP & CVP OLDER JUVENILE\* CHINOOK LOSS & LOSS DENSITY  
03/07/2011 through 03/13/2011**

Date	Older Juvenile Loss** (# fish)			Combined Older Juv Loss Density (fish/taf)
	SWP	CVP	Combined	
03/07/2011	184.14	15.60	199.74	12.41
03/08/2011	35.06	7.80	42.86	2.73
03/09/2011	27.09	9.10	36.19	2.33
03/10/2011	54.12	7.80	61.92	4.15
03/11/2011	108.32	15.60	123.92	8.30
03/12/2011	108.10	12.14	120.24	8.03
03/13/2011	53.90	21.14	75.04	4.55

DWR-DES 3/14/2011

Preliminary, subject to revision

\*Older juveniles defined as all Chinook above the minimum winter run length (Delta Model)

\*\*Loss data obtained from DFG, Stockton

The preliminary estimate of combined older juvenile Chinook salmon loss for yesterday, 3/14/11, was 11.56 fish/TAF, based on a combined loss of 174.92 (155.88 fish at the SWP and 19.04 fish at the CVP) and combined exports of 15.127 TAF (7.751 TAF at the SWP and 7.376 TAF at the CVP). This is above the second stage trigger of the juvenile production estimate-based 1<sup>st</sup> OMR trigger in the NMFS BiOp (*i.e.*, 6.64 fish/TAF). All of the older juveniles were identified as winter-run, according to their length at date.

**DOSS advice for 3/15/11**

DOSS advises NMFS and WOMET to continue to operate to an OMR flow limit of no more negative than -2,500 cfs, at least through Friday, 3/18/2011 (the 5<sup>th</sup> day of operations under the -2,500 cfs OMR limit, which began Monday, 3/14/2011). After Friday, the OMR limit may be relaxed when the combined older juvenile Chinook salmon loss density at the fish facilities declines to less than 6.64 fish/TAF for 3 consecutive days.

On Friday, 3/18/2011, DWR, Reclamation, and NMFS will review (via e-mail) the recent loss densities and assess the need for further review of loss densities over the weekend. If, for example, the loss densities for Wednesday and Thursday (reported on Friday) are below 6.64 fish/TAF, DWR, Reclamation, and NMFS will designate staff to, on Saturday, review Friday's

loss density data and evaluate a possible relaxation of the OMR limit. If the loss density for Thursday (reported on Friday) is above 6.64 fish/TAF, no weekend review will be necessary, since the third day of the next three-day series of loss densities (Friday, Saturday, and Sunday) will not be available until Monday, when Sunday's loss density will be reported.

DOSS will not be convened before next Tuesday's regularly-scheduled meeting unless the decision to relax (or not relax) the OMR limit hinges on one or more loss densities for which the preliminary estimate (prior to being confirmed by DFG) is within 0.1 fish/TAF of the first or second stage trigger in the NMFS BiOp. In the event that a DOSS call is necessary to review "borderline" loss densities that could affect operational decisions, NMFS will schedule a DOSS call within 24 hours of receiving the latest loss density update, and will also alert WOMT to the possibility of an emergency call to consider new advice from DOSS.

### **NMFS Determination**

NMFS accepts the advice from DOSS and determines that continuing to manage CVP/SWP operations to an OMR flow of no more negative than -2,500 cfs, starting on Monday, 3/14, is consistent with the intended implementation of Action IV.2.3 and sufficiently protective of listed species present in the Delta at this time. Beginning with the period from Monday, 3/14/2011 to Friday, 3/18/2011, (the first full five day period of operating to the -2500 cfs OMR limit), until there is some relaxation of the OMR flow requirement, the 5-day running average OMR shall be no more than 25% more negative than -2,500 cfs.

Following the 5-day period beginning on 3/14/2011, the last three consecutive days in which the combined fish loss density is below an action trigger (and provided that the 5-day average OMR is no more negative 25% more negative than -2,500 cfs), the OMR flow limit can be relaxed, as follows.

- If the combined fish loss density drops to below 6.64 fish/TAF, but above 3.32 fish/TAF, on 3/16, 3/17, and 3/18, the OMR flow limit may (as early as 3/19) be relaxed to no more negative than -3,500 cfs.
- If the combined fish loss density drops to below 3.32 fish/TAF on 3/16, 3/17, and 3/18, the OMR flow limit may (as early as 3/19) be relaxed to no more negative than -5,000 cfs.
- If the combined fish loss density exceeds 6.64 on 3/16, 3/17, or 3/18, the OMR flow limit of -2,500 cfs shall continue until there are 3 consecutive days of being below the second stage fish loss density trigger.

NMFS will notify DWR on Friday, 3/18/11, whether a weekend review of the loss density data is needed.